

## **REMARKS**

Claims 1 – 7, 9 – 18, and 20 – 23 are in the application. Claim 23 is currently amended; claims 1, 11, 9, 13, and 20 were previously presented; claims 2 – 6, 21, and 22 are withdrawn; claims 8, 19, 24, and 25 are canceled; and claims 7, 10, 12, and 14 – 18 remain unchanged from the original versions thereof. Claims 1, 20, and 23 are the independent claims herein.

No new matter has been added.

Reconsideration and further examination are respectfully requested.

### **Claim Rejections under 35 USC § 112**

Claim 23 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In reply thereto, claim 23 has been amended as suggested by the Office. Accordingly, Applicant respectfully submits claim 23 is, at least now, definite as defined in 35 U.S.C. 112, second paragraph. Therefore, the reconsideration and withdrawal of the rejection under 35 U.S.C. 112, second paragraph are requested.

### **Claim Rejections under 35 USC § 102**

Claim 23 is rejected under 35 U.S.C. 102(a) as being anticipated by Maggioncalda et al. U.S. Patent No. 6,012,044. This rejection is traversed.

The Office rejected claim 23 on the basis that “claim 23 recites instructions, which, as claims are not functionally related from the medium, and thus do not further distinguish claim 23 from the prior art”. Applicant respectfully submits that claim 23 in fact claims a medium. Case in point, claim 23 recites, “A computer readable medium storing executable instructions adapted to be executed by a processor to perform a

method of facilitating analysis of a commercial mortgage backed security portfolio, the medium comprising". Thus, it is the "medium" that is claimed by Applicant, as opposed the instructions as asserted in the Office Action.

Applicant therefore submits claim 23 does not merely recites instructions. Furthermore, it is respectfully submitted that claim 23 is patentable over Maggioncalda's mere disclosure of "machine-readable medium".

Accordingly, Applicant respectfully submits claim 23 is, at least now, patentable over Maggioncalda. The reconsideration and withdrawal of the rejection of claim 23 under 35 U.S.C. 102(e) are requested.

### **Claim Rejections under 35 USC § 103**

Claims 1, 7 9 – 18, 20 and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. U.S. Patent No. 6,249,775. This rejection is traversed.

Applicant submits claim 1 relates to a computer-implemented method to facilitate analysis of a commercial mortgage backed security portfolio, including determining, by the computer, base information for a commercial mortgage backed security portfolio including a plurality of mortgage loans, the portfolio being associated with a plurality of credit rating categories and each of the plurality of credit rating categories of the portfolio is associated with a corresponding category size, the size of each credit rating category being a percentage of the total portfolio; determining, by the computer, information associated with an additional mortgage loan to be added to the portfolio including at least one desired profitability value for the additional mortgage loan, the additional mortgage loan being associated with a plurality of credit rating categories and each of the plurality of credit rating categories is associated with a corresponding category size that expresses the size of each credit rating category as a percentage of the additional mortgage loan; calculating, by the computer, a loan spread associated with the additional mortgage loan in accordance with a contribution of the additional mortgage loan to the portfolio; calculating, by the computer, a combined profitability of

the portfolio and the additional mortgage loan based on combined category sizes for the plurality of mortgage loans of the portfolio and the additional mortgage loan; and transmitting to a user terminal at least one loan spread value associated with the additional mortgage loan in accordance with the contribution of the additional mortgage loan to the portfolio via a communication network.

Independent claims 20 and 23 are worded similar to claim 1.

Applicant notes that the claimed computer-implemented method clearly includes (1) determining, by the computer, information associated with an additional mortgage loan to be added to the portfolio in accordance with a contribution of the additional mortgage loan to the portfolio, including at least one desired profitability value for the additional mortgage loan; (2) calculating, by the computer, the loan spread associated with the additional mortgage loan in accordance with a contribution of the additional mortgage loan to the portfolio; (3) calculating, by the computer, a combined profitability of the portfolio and the additional mortgage loan based on combined category sizes for the plurality of mortgage loans of the portfolio and the additional mortgage loan. Furthermore, Applicant respectfully submits that claim 1 is representative of the independent claims 1, 20 (related to an apparatus), and 23 (related to a medium storing instructions adapted to be executed by a processor).

Applicant submits independent claims 1, 20, and 23 recite the claimed portfolio being associated with a plurality of credit rating categories and each of the plurality of credit rating categories of the portfolio is associated with a corresponding category size that expresses the size of each credit rating category as a percentage of the total portfolio; as well as the claimed additional mortgage loan being associated with a plurality of credit rating categories and each of the plurality of credit rating categories is associated with a corresponding category size that expresses the size of each credit rating category as a percentage of the additional mortgage loan.

The Final Office Action dated February 24, 2010 (FOA) maintains the previous rejection under 35 USC 103. The FOA also states that the Freeman, at e.g., col. 12, ln. 65 – col. 13, ln. 5, where Freeman discusses determining information and calculating a loan spread and a combined profitability associated with “a new mortgage loan”. (FOA, pg. 3, para. 1)

However, Applicant reiterates Freeman relates to an analysis of past and future performance of loan portfolios, wherein the loan portfolios are fixed. According to Freeman, the disclosed method aggregates loan units into vintages where the loans in each vintage originate within a predetermined time interval of one another. (Freeman, Abstract and col. 3, ln. 13 - 21) Various vintages of the loan portfolio are compared and analyzed to determine past performance, as well as to predict future performance. (Freeman, col. 6, ln. 33 – 38) That is, Freeman explicitly discloses a method that analyzes historical loan portfolio data separated into particular **vintages** as a basis for ascertaining past performance and as a tool in predicting future performance.

There is no disclosure in Freeman of determining information and calculating a loan spread and a combined profitability associated with an additional mortgage, as claimed by Applicant. Instead, Freeman discloses evaluating, analyzing, and even comparing vintages of past originated loans to predict future performance of the loans in the vintages. Referring to those portions of Freeman cited and relied upon by the Office, it is noted that Freeman discloses,

While the invention has been described above in relation to the consideration of vintages in yearly quarterly units, note that in the loan industry exogenous factors such as changes in economy, unemployment and inflation are time varying factors that vary greatly over an annual interval and therefore the system of the invention permits analysis based on the choice of any interval unit. The important thing to realize is that in general, a new mortgage loan is more sensitive to small changes in delinquency performance than an older mortgage. This is shown by widening of the confidence interval bands over time. So in essence, the application of the above described Crus Classes method corrects for this fact.

The invention also takes and adjusts the vintage rating based on quality comparisons for different volatilities of default. In essence, using the system lets the user to set policies with respect to volatilities of default which is another form of risk management. This is new to the industry.

The confidence level in the assessment of the difference in quality between groups of loans depends to a certain degree on the sample size of the loans. For small groups of loans, one will always be less certain of their performance. The real question is how much less certain. This is answered with the Crus Classes method. The Crus Classes method also automatically adjusts the comparison for different sample sizes of loans in each node or product. This is evident in the calculations in the previously presented tables which always take into account the number of loans. An actual calculation that has been carried out to evolve the vintage comparison graph of FIG. 4 in accordance with Tables I, II and III is presented in FIG. 4A.

As described above, the Crus Classes method 34 delivers a comparison of two loan vintages either in the form of a graph or tabulated data which permits one to get a sense of which vintages are performing better. This information can then be used in making manual or automatic, computer generated yes/no decisions whether to originate, purchase, or to maintain and sell various vintages of loan products or servicing rights as needed at the decisional blocks 18, 24 and 32 of FIG. 1.

The basic premise of the Crus Classes analysis is that the future performance of these loan vintages will match the past pattern. This may not necessarily be true. To this end, the early warning system (EWS) 32 of the present invention further enhances the loan analysis process by incorporating an application of behavioral scoring that has been specifically designed to be used on closed end loans with longer maturities such as mortgages. The EWS 32 is able to statistically predict the probability that a group of loans will experience credit performance problems during a future preselected time period, without waiting for that loan to season. In the case of mortgages, the time to season is typically three to seven years. The EWS 34 is intended to provide management with automated analytical tools which allow making decisions well in advance of the aforementioned three to seven "seasoning" period.

By utilizing the EWS, a mortgage originator can perform portfolio analysis and ascertain which product type, program, type of underwriting, property type, type of customer, origination channel, etc. is at risk, without waiting for the mortgages to actually mature and enter default. The only constraint is the amount of data attributes that the mortgage loan originator keeps on any customer over time, which for the purposes of the present invention may be two years. The mortgage originator can then dynamically adjust

the flow of origination by altering any credit criteria derived from a particular attribute.

The EWS 34 constitutes the dynamic component of the underwriting concept of the present invention. With this concept, the decision maker can estimate improvements in credit quality for each specific type or amount of change in a criteria, i.e. he or she can calculate the marginal contribution of any attribute on record.(emphasis added) (Freeman col. 12, ln. 59 – col. 13, ln. 65)

Thus, it is clear that Freeman specifically relates to and discloses loan vintages and performing analysis (i.e. Crus Classes method analysis) on vintages comprising a plurality of loan having common origination dates and other factors such as loan type, loan size, etc. based on Freeman's definition of "vintages". That is, Freeman at all points therein and in all embodiments discloses using previously originated loans (i.e., vintages of loans) to provide analysis of past and future performances. (Freeman, Abstract) The Freeman invention including the Crus Classes analysis relates to vintages of loans. As such, there is no disclosure of determining information associated with an additional mortgage loan, calculating a loan spread of the additional mortgage loan, and calculating a combined profitability of the portfolio and the additional mortgage loan.

Freeman merely discloses, "that in general, a new mortgage loan is more sensitive to small changes in delinquency performance than an older mortgage. This is shown by widening of the confidence interval bands over time". No disclosure or even suggestion is provided in Freeman for calculating, by the computer, the loan spread associated with the additional mortgage loan in accordance with a contribution of the additional mortgage loan to the portfolio; and calculating, by the computer, a combined profitability of the portfolio and the additional mortgage loan based on combined category sizes for the plurality of mortgage loans of the portfolio and the additional mortgage loan. While Freeman states that a new mortgage is more sensitive to small changes in delinquency performance, Freeman does not disclose or suggest any calculating the loan spread and combined profitability associated with an additional mortgage loan since the methods of Freeman do not make the claimed calculations.

For example, the Freeman Crus Classes analysis calculations all use past loan vintages.

Applicant respectfully submits that the arguments of record relating to Applicant's discussion of the actual disclosure and teachings of Freeman are incorporated herein, though not specifically repeated in the present Response and Amendment.

Accordingly, Applicant respectfully submits that the cited and relied upon Freeman does not disclose that for which it was cited and relied upon for disclosing. The disclosure of Freeman therefore fails to render claim 1 obvious.

Therefore, Applicant respectfully submits that claim 1 is patentable over the cited and relied upon Freeman under 35 USC 103(a) for at least the reasons discussed above. Furthermore, claims 7 and 9 – 18 depend from claim 1. Applicant respectfully submits that claims 7 and 9 – 18 are patentable over the cited and relied upon Freeman for at least the reasons discussed above regarding claim 1. Accordingly, Applicant requests the reconsideration and withdrawal of the rejection of claims 1, 7, and 9 – 18 and the allowance of same.

Claims 20 and 23 are worded similar to claim 1. Applicant respectfully submits that claims 20 and 23 are patentable over the cited and relied upon Freeman for at least reasons similar to those presented hereinabove regarding claim 1.

Accordingly, Applicant also requests the reconsideration and withdrawal of the rejection of claims 20 and 23 and the allowance of same.

## **C O N C L U S I O N**

Accordingly, Applicants respectfully request allowance of the pending claims. If any issues remain, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned via telephone at (203) 972-5985.

Respectfully submitted,

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Date

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